

Since October



A lot of work and writing (and meetings) to get all into the PiP (big thanks)

Also going strong:

- CLEAR, XBOXes, ATF2 ... and other technical work (e.g. modules, high eff. klystrons, etc)
- We decided to not ask for reports due to PiP pressure and CLIC WS coming up

Today's agenda:

Project Implementation Plan, CLIC week, CLIC det & physics, CompactLight progress ... following by a drink downstairs

Since October



Meetings/talks:

- LCWS in Arlington TX in October 2018 22-26
- P-ECFA 15.11, Aidan Robson for CLIC:
https://indico.cern.ch/event/759130/contributions/3148650/attachments/1754319/2843685/clic_ECFA18_v1.pdf
- **Last project meeting this year early December (TODAY)**

- CLIC week 2019, January 21-25
- Clear review second week of February (Thursday 7.2)
- LC “strategy meeting” 2019, 8-9 April, EPFL Lausanne
- European Strategy meeting mid May
- ECFA regional workshop (equivalent to the one in Fukuoka) in June 2019 (most likely not)
- 11-14.06.2019: High Gradient Workshop (Chamonix)
- 14 & 15.09.2019: CERN Open Day

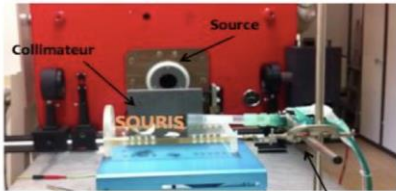
Interesting development



Other example of extremely rapid radiation therapy set-up : FLASH

	CDR	Flash
Dose rate	0,04 Gy / sec	50 Gy / sec
Time for 20 Gy	500 sec (≈ 8 min)	400 ms

...with CURIE LINAC 4,5 MeV

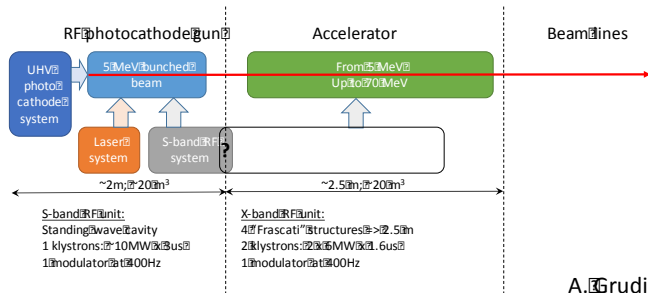


Anesthésie

...with CHUV LINAC 6 MeV



Basic schematic of a linac



A. Grudiev

Radiobiology team

- MC Vozenin
- B Petit
- J Ollivier
- P Montay-Gruel
- G Boivin
- P Tsoutsou
- F Herrera
- A Durham

IRA team

- F Bochud
- JF Germond
- C Bailat
- M Jaccard
- K Petersson
- J Damet
- N Cherbuin

Radio-Onco team

- J Bourhis
- M Oszahin
- H Bouchaab

Curie team

- V Favaudon
- J Hall
- C Feuillade
- F Pouzoulet

CEA team

- PH Romeo
- F Pflumio
- N Gault
- D Lewandowski
- F Hoffchir
- S Moreno
- B Uzan

EPFL team

- D Hanahan team
- E Meylan team

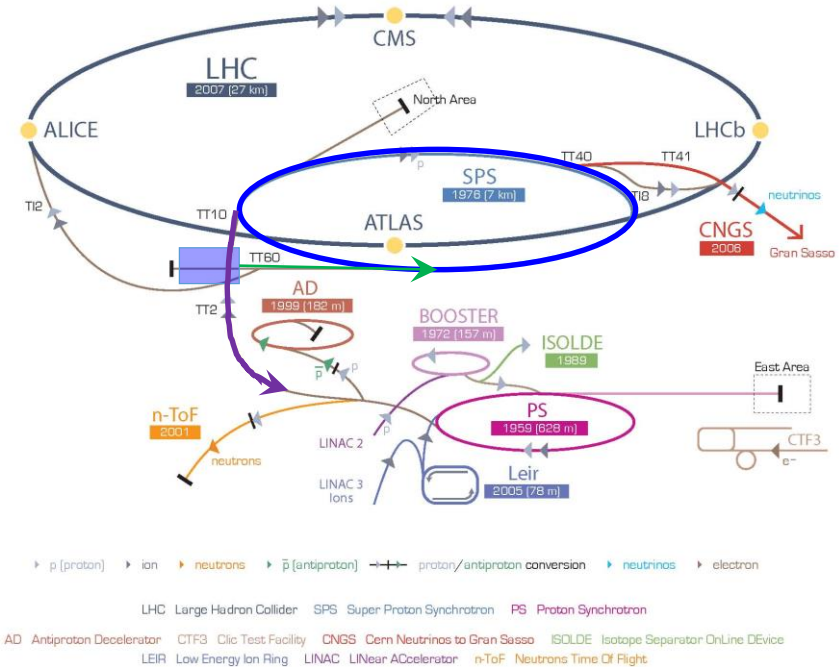


Electrons at CERN - overview



Accelerator implementation at CERN of LDMX type of beam

- X-band based 70m LINAC to ~3.5 GeV in TT4-5
- Fill the SPS in 1-2s (bunches 5ns apart) via TT60
- Accelerate to ~16 GeV in the SPS
- Slow extraction to experiment in 10s as part of the SPS super-cycle
- Experiment(s) considered by bringing beam back on Meyrin site using TT10

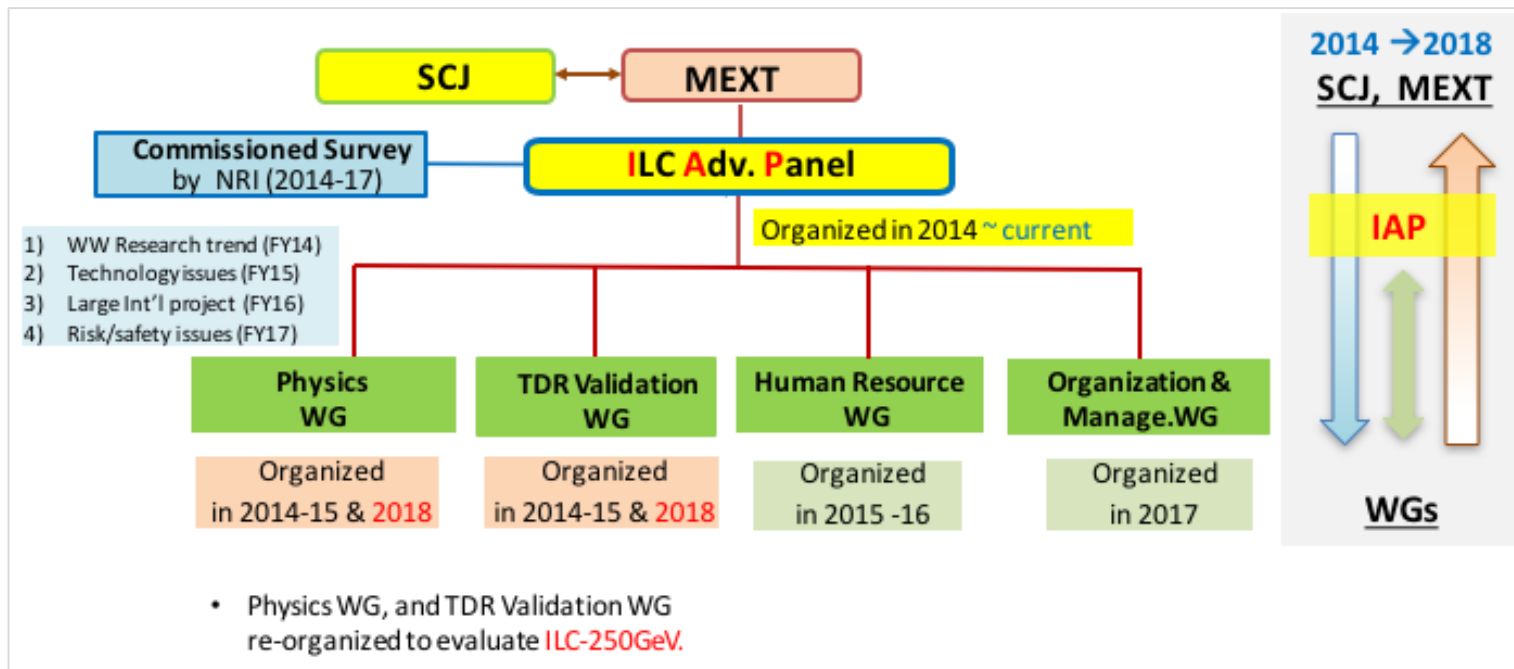
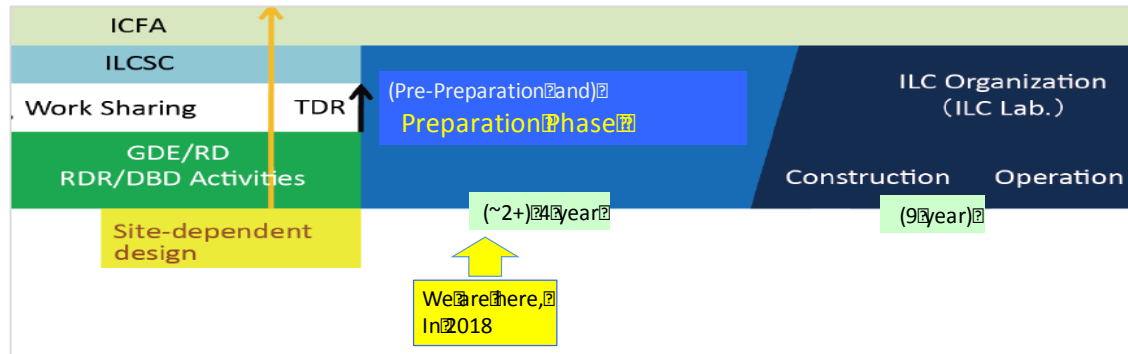


Beyond LDMX type of beam, other physics experiments considered (for example heavy photon searches)

Acc. R&D interests: Overlaps with CLIC next phase (klystron based), FEL linac modules, e-beams for plasma, medical/irradiation/detector-tests/training, impedance measurements, instrumentation. positrons and damping ring R&D

EoI to SPSC: <https://cds.cern.ch/record/2640784>

Status and Prospect for ILC



Circular Electron Positron Collider

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Future High Energy Circular Colliders

The Standard Model (SM) of particle physics can describe the strong, weak and electromagnetic interactions under the framework of quantum gauge field theory. The theoretical predictions of SM are in excellent agreement with the past experimental measurements. Especially the 2013 Nobel Prize in physics was awarded to F. Englert and P. Higgs “for the theoretical discovery of a mechanism that contributes to our understanding of the origin of mass of subatomic particles, and which recently was confirmed through the discovery of the predicted fundamental particle, by the ATLAS and CMS experiments at CERN's Large Hadron Collider”.

After the discovery of the Higgs particle, it is natural to measure its properties as precise as possible, including mass, spin, CP nature, couplings, and etc., at the current running Large Hadron Collider (LHC) and future electron positron colliders, e.g. the International Linear Collider (ILC). The low Higgs mass of ~ 125 GeV makes possible a Circular Electron Positron Collider (CEPC) as a Higgs Factory, which has the advantage of higher luminosity to cost ratio and the potential to be upgraded to a proton-proton collider to reach unprecedented high energy and discover New Physics.

Panel Discussion on Fundamental Physics

Recent Events

- 2019 CEPC International Workshop (EU Edition), University of Oxford, April, 2018
- The Fourth CEPC IAC meeting Nov. 14-16, 2018
- [2018 CEPC International Workshop Nov. 12-14, 2018](#)

[More...](#)
[CEPC CDR Volume 1 \(Accelerator\)](#)
[CEPC CDR Volume 2 \(Detector-Physics\)](#)

Now to:



CLIC Project Meeting #33

Thursday 6 Dec 2018, 09:00 → 14:00 Europe/Zurich

60-6-015 - Room Georges Charpak (Room F) (CERN)

Philip Burrows (Oxford University), Steinar Stapnes (CERN)

Videconference
Rooms

CLIC_Project_Meeting___32

Join

Room Georges Charpak (Room F)

09:00	→ 09:10	News, collaboration, resources, technology project Speaker: Steinar Stapnes (CERN)	10m	60-6-015 - Room Georges Cha...	
09:25	→ 10:40	The CLIC Project Implementation Plan - overview of status and new results presented <ul style="list-style-type: none">Overall (Phil)Design and parameters (Daniel)Technical developments (Nuria)Civil Engineering and infrastructure (Matt/John)Implementation (Steinar)Performance (Roberto) Speakers: Daniel Schulte (CERN), John Andrew Osborne (CERN), Matthew James Stuart (CERN), Nuria Catalan Lasheras (CERN), Philip Nicholas Burrows (University of Oxford (GB)), Roberto Corsini (CERN), Steinar Stapnes (CERN)	1h 15m	60-6-015 - Room Georges Ch...	
10:40	→ 11:00	Coffee break	20m	60-6-015 - Room Georges Cha...	
11:00	→ 11:20	Compact Light Status Speaker: Andrea Latina (CERN)	20m	60-6-015 - Room Georges Cha...	
11:25	→ 11:45	Physics and Detector status Speaker: Aidan Robson (University of Glasgow (GB))	20m	60-6-015 - Room Georges Cha...	
11:50	→ 12:10	CLIC workshop 2019 Speaker: Steinar Stapnes (CERN)	20m	60-6-015 - Room Georges Cha...	
12:15	→ 12:25	AOB and next meetings	10m	60-6-015 - Room Georges Cha...	
12:30	→ 14:00	CLIC Christmas Drink	1h 30m	500-1-201 - Mezzanine	